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The Green Thumb

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LILAC MONT BLANC
BLOOMING AT THE FOOT OF PIKES PEAK
Photo by K. N. Marriage, Colorado Springs

LILACS for COLORADO

By MILTON J. KEEGAN

"The lilac is popular throughout the world, but I believe that nowhere is it as beautiful as in the United States and Canada. In those countries the contrast between the dry warm summers and the very rigorous winters lends itself wonderfully to the development of the lilac and the richness of its bloom." (1) This statement, applicable to much of Colorado, was made by Emile Lemoine of Nancy, France, who with his father Victor Lemoine, (2) originated a very large percentage of the most beautiful modern varieties of the "old-fashioned" common lilac. The terms "French lilacs" and "French hybrids" have, as a consequence, been loosely applied to the large group of improved modern varieties of the common lilac (*Syringa vulgaris*) in commerce today. (3)

It was three-quarters of a century ago that the German army overran Nancy, France, in the Franco-Prussian War. Within that city was a garden where Victor Lemoine, then nearing fifty, and his wife had been working for twenty years. They picked up the



LILACS, PRESIDENT GREVY, BELLE DE NANCY AND TOUSSAINT L'OUVERTURE

pieces and went right on working until the enemy began their homeward journey back towards the Rhine. When the siege lifted the first of the French

(1) Alice Harding, "Lilacs in My Garden." Macmillan, 1933.

(2) "Pierre Louis Victor Lemoine, the greatest hybridizer the world has known. He came by his talents naturally. He was descended from a long line of gardeners and nurserymen. Born at Delme in Lorraine, October 21, 1823; he went through school and college and then devoted several years traveling and working in the leading horticultural establishments of Europe In 1850 . . . he settled down at Nancy both as a florist-gardener and as a married man. . . . As early as 1885 France honored him with its Legion of Honor and in 1894 advanced him to the grade of officer. . . . He died in his 89th year, Scarcely a garden in this new world or the old but bears some flowering monument to him. . . ." Richardson Wright, "Men Who Make Our Flowers—Victor Lemoine," House & Garden, April, 1937, p. 66; see also T. A. Havemeyer's "How the Modern Lilac Came to Be: Recounting the story of Mr. Lemoine's work," Garden Magazine, May, 1917, 25:232.

(3) "Introduced into cultivation before 1560, the old-fashioned lavender-colored lilac (*Syringa vulgaris*) and its white-flowered form have been grown so long in cultivation that many variations have arisen. From this early date, the hundreds of pink, red and deep purple-

lilacs were ready to be introduced to the world's gardens. One of the most beautiful double lilacs to come from their garden was named after the French lawyer, Leon Gambetta, who led the patriotic but untrained French army that tried so gallantly to defend that part of France. One of the finest single lilacs, Capitaine Baltet, was named for the son of his friend Charles Baltet, nurseryman of Troyes, who gave his life defending France in World War I, and another which some critics say is the handsomest of all single lilacs is named Marechal Foch. Victor Lemoine lived into his 89th year—and near the end, as his eyesight began to

fail, it is said that his aged wife climbed the garden ladder to pollinize by hand the lilacs they never ceased to improve. Their son Emile Lemoine has carried on to excel the varieties that the experts thought were impossible of further improvement.

"Lilac," writes C. P. Halligan (4) of Michigan State College of Agriculture, "is the quaint name of this quaint shrub from that ancient center of civilization, Eastern Europe, where this beautiful word of Persian origin means flower. . . .

"Comely and vigorous in its youth, stately and elegant in its prime, perma-

flowered forms have gradually arisen and been carefully selected and propagated. . . . The term 'French hybrids' has been loosely applied to the large group of varieties of the common lilac, probably because so many of them originated in France. Victor Lemoine and his associates have been more outstanding in introducing varieties of the common lilac than any others. However, a great many horticulturists have worked with the lilac, carefully selecting plants in France, Germany, Belgium and Holland. Comparatively recently some of them have originated in the United States and Canada" Donald Wyman, "Just About Lilacs," Arnold Arboretum, Harvard University Bulletin of Popular Information, May 20, 1936, 4:39-40.

It is obvious that the "old-fashioned" common lilac we remember in the gardens of our parents and grandparents were improved varieties that were a far cry from the wild *Syringa vulgaris* plants that grew in the mountains of Europe five centuries ago and which can still be found growing in the mountains of Bulgaria. The old-fashioned common lilacs still in commerce today probably are improved varieties brought to America from Europe by early settlers of a century or two ago.

As to the untamed and unimproved wild species *Syringa vulgaris*, Ernest H. Wilson in "Aristocrats of the Garden" 1:214 says: "In the Arnold Arboretum may be seen growing specimens raised from seeds gathered from wild plants. They have narrow clusters of dull purplish flowers and are by no means attractive garden shrubs."

For a reader who may be curious about how "Syringa" became the generic name for Lilacs and why it is still sometimes erroneously applied to mock-oranges: "Syringa, modern Latin from Greek syrinx, a pipe. First applied about 1664 as a common name to the mock-orange because its branches were used for pipe stems (the pith is easily removed). Later used as a generic name for the Lilac. The mock-orange was named by Linnaeus *Philadelphus Coronarius*—the genius—for no obvious reason, while the specific name is a Latin word meaning belonging to a wreath or garland. This present usage of the genera names *Syringa* and *Philadelphus* is due to Linnaeus who included them in his 'Species Plantarum,' 1753 15.", Hervey W. Shimer (Prof. Emerit. of Paleontology, Mass. Inst. of Tech.) "Origin and Significance of Plant Names," p. 56, published by South Shore Nature Club, Hingham, Mass., 1943. "Vulgaris," of course, is a Latin word meaning common.

- (4) C. P. Halligan, "Hardy Shrubs for Landscape Planting in Michigan," Mich. St. Coll. Bull. 152, Nov. 1935, verse by Violet Jacobs.



LILAC-TIME

nent and picturesque in its old age, it seems to typify that domestic dignity we associate with those lovely old homes of our ancestors,—an inheritance of today from generations of the past. Then it was universally used, whether it was about the small simple cottage of the peasant or the mansion of the nobleman,—we were assured always of its presence.

“And close beside the gateway,
Tall, upon either hand,
Their green robes shot with sunlight
Like queens the lilacs stand.”

“Now, the common lilac,” says Ernest H. Wilson, (5) former keeper of the Arnold Arboretum at Harvard, who had such a contagious enthusiasm for horticulture, “is a native of the mountains of Bulgaria and was sent from Constantinople to Vienna about 1560. From there it soon reached Western Europe and both purple and white kinds were cultivated in London in 1597 by Gerard. It is not known with certainty when or by whom the lilac was introduced to North America, but Washington (6) wrote about it in his diary and planted it at Mount Vernon where his plants or their

descendants are growing this day.” E. A. Upton reports that “in 1771 William Prince, American Nurseryman, offered blue lilacs at one shilling and white lilacs at two shillings.”

In spite of the fact that the “old-fashioned” lilac (*Syringa vulgaris*) has been cultivated in Europe for five centuries, in America since Colonial times, and in Colorado since the “Pikes Peak or Bust” Gold Rush days of 1859, the greatest improvement in general quality, size, substance and range of color has been made in the present century and more particularly during the last twenty-five years. The Lemoine varieties introduced since 1910 particularly stand out. (7) The best modern varieties have foot-long panicles with large nickel- to dollar-size florets. The new varieties come with single florets up to 1½ inches across and with double flowers like small roses—and they especially recommend themselves by the richness of their coloring which ranges from snow-white to lilac, to mauve, to purple and almost to blue and red.

A famous English gardener once said: “The ideal size garden is one that

(5) Ernest H. Wilson, “Aristocrats of the Garden” 1:213–4. The Stratford Company, Boston, 1926–1932.

(6) It is not known whether any direct descendants of George Washington’s “Lylacks” are growing in Colorado. However Eva Bird Bosworth “Trees and Peaks” (1911) quoted from W. G. M. Stone, the president of the State Forestry Association, “The New Trees for Colorado” in part: “On the Capitol grounds . . . are . . . black walnuts grown from seed personally gathered by Governor Routt from a tree planted by Abraham Lincoln at his home in Springfield, Illinois. The Governor planted the nuts in his yard at the corner of 14th and Welton, and when large enough to transplant they were set by him where they now stand. They are a memorial of the immortal Lincoln and the first Governor of the State of Colorado.”

(7) “Lilacs for America” a Report of 1941 Survey conducted by the Committee on Horticultural Varieties of the American Association of Botanical Gardens and Arboreturns, published by The Arthur Hoyt Scott Horticultural Foundation, Swarthmore College, Swarthmore, Pa. 1942 Revised and Corrected 1943, price \$1.00 per copy.

is not quite big enough." Most gardeners can afford to plant only the very finest garden aristocrats.

It was Ernest H. Wilson who said: "With boundless wealth in plant material at our command we may enjoy quality . . . , and the best costs no more to grow than that of inferior merit. Granted it is more difficult to obtain but there is sport in hunting down and securing trophies. There is indeed real fun in this and the pleasure does not end there. . . . The size of a garden rules quantity but not quality. If in the garden there be room for one plant only then I would have this plant, the most beautiful that can flourish there," (8)

For the gardener who has room for only a few lilacs and the nurseryman who wishes to stock a limited number of varieties that will sell, the seven hundred named lilac varieties and species are bewildering. The Arnold Arboretum lilac collection contains nearly 500 varieties and species. The Highland Park, Rochester, New York, and the Morton Arboretum, Lisle, Illinois, collections have about 400 each.

In the past two decades many experts have tried to guide the amateur through this trackless lilac forest by compiling lists of the best dozen or

two. (9) Three books on lilacs have recently been published. (10)

In 1942 the results of the excellent and authoritative national survey (under the chairmanship of John C. Wister) of all the 700 lilac varieties and species was published in "Lilacs for America." (7) The consensus of opinion of nurserymen and collectors throughout America on general garden value of the variety and species was shown by using the numerical system: 9-10 best; 7-8 very good; 4-6 good; 0-3 poor.

The Colorado survey (11) has followed the method of numerical rating used in the national survey. Colorado nurserymen and collectors were sent a list of the 100 varieties and species tentatively recommended in "Lilacs for America" (7) and were asked to rate them and also any others they had had experience with.

Colorado plant zones vary from the Plains Zone (3500 to 6000 feet), the Foothill Zone (6000 to 8000 feet), the Montane Zone (8000 to 10,000 feet), the Subalpine Zone (10,000 to timberline), and the Alpine Zone above timberline and up to 14,431 feet. With all these varied climates and lengths of growing season in Colorado a person who tries to summarize a Colorado survey might get alarmed by an emi-

(8) Ernest H. Wilson, *Idem*. Prologue XIII-XVIII.

(9) Richardson Wright, "Lilac Rex," *House & Garden*, May 1937, Sec. 1, p. 47; John C. Wister, "Four Seasons in the Garden" (1936) p. 118; same author "The Lilac Line-up for Gardens Great and Small," *House & Garden*, Mar. 1934, 65:26; Leonard Barron, "Mr. Havemeyer's Lilacs," *Country Life*, May, 1934, 66:66; Ernest H. Wilson, "Lilacs Wild and Otherwise," *House & Garden*, May, 1929, 55:116; same author "Garden Aristocrats" (1926), Ch. "In 'Lilacdom'" 1:213; Alice Harding "Lilacs in My Garden" (1933); Montague Free, "Gardening," p. 104 (1937).

(10) Alice Harding, "Lilacs in My Garden," Macmillan, 1933. John C. Wister, "Lilac Culture," Orange-Judd, 1930, 1936. Susan Delano McKelvey, "The Lilac," Macmillan, 1928.



*"With many a pointed blossom rising delicate,
with the perfume strong I love."*—Walt Whitman

nent Irishman's warning: "All generalizations are false—including this one."

However one very interesting result of the survey is that nearly all lilacs and especially the French varieties seem to grow well in Colorado almost all the way up to timberline.

In mile-and-a-half-high Gunnison, Mr. Henry F. Lake, Jr. is successfully growing 77 lilac varieties in his 7700-

foot-high garden. He says in severe winters there the temperature drops to 47° below with three feet of snow. He writes: "We have in Western Colorado, a march of lilacs lasting a month, from the time the early ones come out at Grand Junction (4,583 ft.) progressively through Delta (4,980 ft.), Montrose (5,820 ft.), Hotchkiss (5,370 ft.), Paonia (5,696 ft.) Ridgeway (6,990 ft.) and lastly our blossoms in the moun-

- (11) George W. Kelly has included a lilac survey in his excellent series of surveys of garden aristocrats that thrive in Colorado climate. He sent ballots to about seventy-five nurserymen and gardeners in Colorado. Kelly assigned to the writer the interesting task of summarizing the results for "The Green Thumb." Thirteen ballots were returned with valuable notes from points all over the state as compared to 38 voters in the national survey. We are only sorry that limitation of space prevents quoting all of the interesting comments. Three voted on 50 to 60 varieties, one on 40 varieties. The average number voted on was eighteen. Several voters are growing the newer varieties and latest novelties but haven't accumulated enough experience to vote on their merits.

tain towns of Salida (7,050 ft.), Ouray (7,721 ft.), and Gunnison (7,683 ft.). Our season (Gunnison) is a week to ten days later than Salida. . . . As a newspaper editor (Gunnison News—Champion) I have a good many contacts with people living at still higher altitudes in Crested Butte (8,867 ft.), Lake City (8,681 ft.), Pitkin (9,200 ft.) etc. Have been giving them specimens of peonies and lilacs to try, and so far as I can see their culture can go up to timberline.” (12)

Lemoine J. Bechtold reports that at his summer home in Bear Creek Canon near Evergreen at 7,000 feet altitude in subirrigated location near that mountain stream the French lilacs and the species and hybrids *persica*, *chinensis*, *josikaea* and *Henri Lutece* all do beautifully. Luther White, pioneer nurseryman in the White River country at Meeker, writes that “all lilacs are hardy and beautiful here.”

In mile-high Denver the peak of bloom (*Syringa vulgaris* and its modern French varieties) extends over about a two-weeks' period in May but fluctuates with our spring weather from early May to mid-May or even late May as happened last spring (1944). Mrs. G.

R. Marriage's Upton Gardens collection at Colorado Springs (5,900 feet) was exceptionally beautiful last spring, blooming somewhat later than in Denver. She says the French lilacs bloom late, so are rarely hurt by frosts. D. M. Andrews told the writer that his Rockmont Nursery collection of a hundred varieties of imported French lilacs at Boulder (5,350 feet) bloomed heavily on an average of three years out of every four. Andrews said fall transplanting was probably even better than early spring.

In the following tabulation of the results of the Colorado survey the Lemoines of Nancy, France, in the year designated, introduced the varieties of the common lilac listed except where otherwise indicated.

The color classification in “Lilacs for America” is followed in the tabulation. Lilac colors are combinations of blue and red of numerous hues, values, intensities and purity. The colors vary from buds to open florets and from day to day until they fade. The color of a given variety of the common lilac is almost as difficult to describe accurately as is the familiar and delightful lilac fragrance common to *Syringa vul-*

(12) Among the French lilacs Lake mentions as outstanding at 7700 feet elevation are in alphabetical order Capitaine Baltet, Edith Cavell, Ellen Willmott, Henri Martin, Ludwig Spaeth, Mme. F. Morel, President Fallieres, President Poincare, Reaumur, Vestale, Victor Lemoine, William Robinson, and the hybrids *Chinensis* (except *Chinensis alba*) and the species *persica*. He has a seventeen-year-old *amurensis japonica* tree in his lawn and recommends it as good but thinks the Japanese tree lilac is almost at the limit of climate there.

(13) “A basic formula for a synthetic lilac oil would consist of approximately fifty parts of Terpeneol, twenty-five parts of Hydroxy Citronellol, six parts of Anis Aldehyde, five parts of Heliotropine, one part of Iso Eugenol, two parts of Alpha Amyl Cinnamic Aldehyde, twelve parts of DiMethyl Benzyl Carbinol, two parts of Phenyl Acetaldehyde, two parts of Anis Alcohol. Besides these, compound oils of Jasmine, Tuberose, Jonquil, Rose, Iris, Orange-blossoms, Ylang, Hyacinth, and others, are added in small quantities.” Dr. Ernst Ohlsson quoted by Alfred Gunderson “Lilacs in the Brooklyn Botanical Garden,” Brooklyn Botanical Record 30:194, July, 1941.

garis and its varieties which is described chemically (13) as the combination of numerous volatile oils under the forbidding name "*three-methyl-valeraldehyde-isopropyl carbinol*, with small amounts of *phenyl acetaldehyde*, *phenyl propylaldehyde*, and *phenyl glycol*." This may explain why a true lilac perfume is not yet in commerce. If any-

one wants to make some the recipe is given in footnote (13).

The numerical ratings mean 9-10 best, 7-8 very good, 4-6 good, 0-3 poor, and for comparison with the Colorado balloting the ratings in the national survey from "Lilacs for America" are also shown.

Common Lilac Varieties

Colo. Nat'l
Aver- Aver-
Votes age age

SINGLE

		8.7	MONUMENT (1934)
4	8.1	8.5	VESTALE (1910)
5	8.5	7.7	MONT BLANC (1915)
		7.7	MARIE FINON (1923)
		7.6	CANDEUR (1931)
3	6	7.5	JAN VAN TOL (van Tol 1916)
1	7.5	7.2	WHITE SWAN (Hav.)
		7.2	MME. FÉLIX (Felix 1924)
2	6	6.8	MME. FLORENT STEPMAN (Step. 1908)
8	5.2	5.6	MARIE LEGRAYE (1879)

Colo. Nat'l
Aver- Aver-
Votes age age

DOUBLE

I. WHITE

5	8.7	9.2	EDITH CAVELL (1916)
8	8.1	8.0	ELLEN WILLMOTT (1903)
4	5.5	7.1	JEANNE D'ARC (1902)
7	6.4	6.6	MME. LEMOINE (1890)
4	5.5	6.3	MME. CASIMIR PERIER (1894)
1	4	5.5	SIEBOLD (1906)

II. VIOLET

1	5	7.6	DE MIRIBEL (1903)
3	7.3	6.7	CAVOUR (1910)
3	7.3	7.8	MARECHAL LANNES (1910)
	2	6	7.2 VIOLETTA (1916)
	1	5	6.7 LE NOTRE (1922)

III. BLUISH

(a) Blue

2	8.3	8.7	FIRMAMENT (1932)
1	8	8.5	AMBASSADEUR (1930)
3	7	7.8	PRES. LINCOLN (Dunbar 1925)
1	5	7.0	DECAISNE (1910)
		6.8	DIPLOMATE (1930)
4	7.3	6.4	BLEUATRE (Baltet 1897)
		8.1	AMI SCHOTT (1933)
	3	7.3	7.9 OLIVIER DE SERRES (1909)
	1	5	7.6 EMILE GENTIL (1915)

(b) Bluish Lilac

		7.9	MAURICE BARRES (1917)
4	7.6	6.7	BOULE AZUREE (1919)
		6.6	GENERAL SHERMAN (Dun. 1917)
		4	7.4 7.0 DUC DE MASSA (1905)
		7	5.6 6.9 PRES. GREVY (1886)
		4	7.9 6.8 PRES. VIGER (1900)
		2	6.5 6.7 JULES SIMON (1908)
		3	7.7 6.6 RENE JARRY-DESLOGES (1905)

Colo. Nat'l
Aver- Aver-
Votes age age

Colo. Nat'l
Aver- Aver-
Votes age age

SINGLE

DOUBLE

IV. LILAC

(a) Common Lilac Color

		7.9	MARENGO (1923)	2	6.9	7.4	HENRI MARTIN (1912)
2	7.5	7.3	JACQUES CALLOT (1876)	7	9	7.3	LEON GAMBETTA (1907)
		6.7	CHRISTOPHE COLOMB (1905)	2	6.8	6.4	HIPPOLYTE MARINGER (1909)
4	5.8	5.9	HUGO KOSTER (van Tol 1916)				
7	5.3	5.0	VULGARIS COERULEA (Circa 1600)				

(b) Light Lilac

1	4	7.4	WM. C. BARRY (Dun. 1928)	4	7.9	7.7	PRES. FALLIERES (1911)
				5	7.4	7.4	VICTOR LEMOINE (1906)
						7.4	ROSACE (1932)
				1	7	6.9	THUNBERG (1913)

V. PINKISH

(a) Lilac Pink

4	6.8	7.3	KATHARINE HAVEMEYER (1922)
		7.2	CAPITAINE PERRAULT (1925)
3	4.7	6.7	WALDECK-ROUSSEAU (1904)
2	6.5	6.3	JEAN MACE (1915)
3	6	6.2	BELLE DE NANCY (1891)
1	5	6.6	JULES FERRY (1907)

(b) Pink

6	7.4	8.0	LUCIE BALTET (Baltet 1888)	3	8.2	7.6	MME. ANTOINE BUCHNER (1905)
4	8.6	7.8	MACROSTACHYA (1844)				
		6.4	FRAU WM. PFITZER (Pfitzer 1910)	4	7	6.9	MONTAIGNE (1907)
						5.6	VIRGINITE (1888)

VI. REDDISH PURPLE

2	9.5	9.0	GLORY (Hav.)	5	7.9	8.0	PAUL THIRION (1915)
1	8	8.3	MARECHAL FOCH (1924)			7.8	PAUL DESCHANEL (1924)
6	8.1	8.2	MME. F. MOREL (Morel 1892)	3	8	7.0	MRS. EDWARD HARDING (1923)
6	8.3	8.0	CAPITAINE BALTET (1919)				
5	9.1	7.9	MASSENA (1923)	10	6.9	6.8	CHARLES JOLY (1896)
5	8.2	7.9	REAUMUR (1904)	4	7.4	6.8	PRES. POINCARÉ (1913)
7	8	7.4	CONGO (1896)	2	6.8	6.4	GEORGES BELLAIR (1900)
6	6.7	7.4	RUHM VON HORSTENSTEIN (Wilke 1921)	2	6	6.4	PRES. LOUBET (1901)
2	6.8	7.1	MARCEAU (1913)				

Colo. Nat'l
Colo. Aver- Aver-
Votes age age

 Colo. Nat'l
Colo. Aver- Aver-
Votes age age

SINGLE

DOUBLE

VII. PURPLE

2	9.5	8.4	NIGHT (Hav.)
3	8.5	8.3	MONGE (1913)
1	7	8.1	PRODIGE (1928)
2	8	8.0	MRS. W. E. MARSHALL (Hav. 1924)
12	7.9	7.8	LUDWIG SPAETH (Spaeth 1883)
1	8	7.4	ETNA (1927)
3	7.7	7.1	DIDEROT (1915)
		7.1	LA PLACE (1913)
2	6.5	6.7	TOUSSAINT L'OUVERTURE (1908)
3	7.7	6.7	VOLCAN (1899)

6.2	ADELAIDE DUNBAR (Dun. 1924)
6.2	PAUL HARIOT (1902)

Monsieur Lemoine couldn't vote in either the Colorado or the American national lilac surveys. In 1933 according to Mrs. Edward Harding (1) two of Lemoine's favorites were Capitaine

Baltet (1919) and Boule Azuree (1919). Several years ago Lemoine's choices were reported (14) by J. Brisben Walker, Jr. to be:

SINGLES

VESTALE (1910)
MARCEAU (1913)
MONT BLANC (1915)
CAPITAINE BALTET (1919)
MASSENA (1923)
MARECHAL FOCH (1924)
PRODIGE (1928)
AMBASSADEUR (1930)

	Nat'l Aver- age	Colo. Aver- age
White	8.5	8.1
Reddish	7.1	6.8
White	7.7	8.5
Reddish-purple	8.0	8.3
Reddish-purple	7.9	9.1
Reddish-purple	8.3	8
Purple	8.1	7
Blue	8.5	8

DOUBLES

MME. LEMOINE (1890)
ELLEN WILLMOTT (1903)
MME. ANTOINE BUCHNER (1905)
PRES. POINCARE (1913)
PAUL THIRION (1915)
EDITH CAVELL (1916)
KATHARINE HAVEMEYER (1922)
MRS. EDWARD HARDING (1923)
GENERAL PERSHING (1924)

White	6.6	6.4
White	8.0	8.1
Pink	7.6	8.2
Reddish-purple	6.8	7.4
Reddish-purple	8.0	7.9
White	9.2	8.7
Lilac-pink	7.3	6.8
Reddish-purple	7.0	8
Lilac-pink	6.5	

(14) "Lilacs, Ideal for Colorado Climate," Rocky Mountain News, June 2, 1941.



"Ever returning spring, . . .

Lilac blooming perennial,"—Walt Whitman

For those who prefer still shorter thumbnail lists, we give you the choices of three Colorado voters who voted on more than fifty varieties. It is regretted that space prevents listing the favorites of all the voters.

Mrs. G. R. Marriage (Upton Gardens, Colorado Springs) selected the following four as best: Lucie Baltet, Massena, Edith Cavell and Mme. F. Morel. Close seconds included Mont Blanc, Ellen Willmott, Cavour, Olivier de Serres, Duc de Massa, President Fallieres, Macrostachya, Ludwig Spaeth, Paul Thirion, Volcan and Jules Simon.

Roy P. Rogers (Rockmont Nursery, Boulder) in sending in his ballot writes: "Vestale and Mont Blanc are the two best single whites. I cannot see much difference. . . . Edith Cavell is the best double white closely followed by Ellen Willmott. Boule Azuree (ball of blue) is wonderful in flower but seems a poor grower. The two best lilacs we have are Massena (a dark red-purple single) and Leon Gambetta (a lavender-lilac double)." Runner-ups on Rogers' ballot included Monge, Capitaine Baltet, Mme. F. Morel, Victor Lemoine, President Viger, Paul Thirion, Reaumur and Marceau.

Lemoine J. Bechtold writes on his ballot: "Monge, Capitaine Baltet, Massena are my choice three." Rated slightly below these on Bechtold's ballot were Vauban, Mont Blanc, Marechal Lannes, Lucie Baltet, Reaumur, Jan van Tol, President Lincoln, Boule Azuree, Duc de Massa, President Viger, Leon Gambetta, Etna, Diderot, Marechal Foch, Ruhm von Horstenstein, Paul Thirion, Mrs. Edward Harding and President Poincare.

Henry F. Lake, Jr.'s list of outstand-

ing varieties in his collection at Gunnison has been given in footnote (12).

The two most sensational lilacs in the writer's garden, Glory and Night, are both seedlings developed in America by T. A. Havemeyer who grew the finest of the French lilacs in his Long Island garden and did much in introducing French lilacs to other American gardens. Glory, a pinkish orchid colored single bloomed this year with florets slightly over $1\frac{1}{2}$ inches across with $\frac{1}{2}$ -inch-wide petals. Night is a regular bloomer with foot-long panicles and florets (flat not cupped) measuring nearly $1\frac{1}{2}$ inches across. Night opens a very dark red-purple (darker than Massena) and slowly changes to a rich royal purple. The almost black blossom buds are not fooled into opening in a warm March spell—and late March or early April storms with 10° or lower leave Night's tight blossom buds untouched.

When Mr. Havemeyer and Mr. Alexander Michie in 1936 sent the writer Glory and Night to try out in Colorado, Mr. Michie said Glory was the finest of all Mr. Havemeyer's raising; and that with them "Night is the finest dark lilac there is." In the national survey these two rated at the top. Mr. E. A. Upton (Upton Nursery Co., Detroit) recently wrote us that he is undertaking to propagate Night and Glory on their own roots commercially. They are well worth waiting for.

In the above short lists the nearest to the familiar lilac color are Capitaine Baltet (a single with quarter- to dollar-size florets), Mme. F. Morel, (a mauve-pink single with nickel-size flowers), and Leon Gambetta (double). President Fallieres and Victor Lemoine also are fine doubles similar to Leon Gam-

beta. Massena is a very deep red-purple single with cupped half-dollar-size florets. All men like it—many women like it too, especially mixed with white French lilacs in a bouquet.

One interesting observation of the Colorado survey on the French lilacs is that in the pink group Colorado voters rate the delicately colored, almost apple-blossom-pink, hundred-year-old variety *Macrostachya* ahead of the coral-pink variety Lucie Baltet. *Macrostachya* buds are an attractive soft rose-pink deep enough to contrast with the nearly white florets barely tinted pink. A mature *Macrostachya* bush loaded with blossoms is much admired. This old lilac deserves its high rating up with the finest of the newest novelties.

For those who are looking for a lilac to fit a small space, Reaumur recommends itself for its low-growing and floriferous habits. D. M. Andrews accurately described Reaumur as: buds deep carmine, florets a subdued rosy-mauve, profuse bloomer, brilliant effect and rather dwarf.

The ballots turned up with widest spread of votes on the old-fashioned *Syringa vulgaris* which included a full house with three 3s and a pair of 9s. The voting on Lucie Baltet ranged from 5s up to 9.5. Most varieties ran fairly consistent in ratings.

Many French lilacs have the virtue of not growing as dense and tall as their ancestor, the old-fashioned common. The dark singles grow more slowly. They can all be kept to within five to eight feet by proper pruning, if they are on their own roots.

Lilacs should be purchased on their own roots if so available. Grafted plants sometimes develop lilac roots and frequently in our soil and climate they do not—and if they do not they may die sooner or later. Lilacs, especially those on their own roots, seldom die from transplanting but they resent it and usually bloom off-color and off-size the first year or two. Once their complicated root system gets thoroughly reestablished they will pay dividends with beautiful fragrant blossoms for a hundred years.

Lilac Species and Hybrids

Probably the brightest jewel among the hybrids is the oldest—a cross between *Syringa vulgaris* and *persica*—in commerce under the names *Syringa chinensis*, *rothomagensis* and Rouen lilac. It was first found growing in the botanical garden at Rouen, France, long ago about the time George Washington was recording in his diary his plantings of “Lylacks” in his Mount Vernon garden. The hybrid *chinensis* comes in various colors, some of the selected varieties having been named. Its blooming season is the same as the

French lilacs. Neither this hybrid nor the *persica* have as good lasting qualities as cut flowers as the French varieties of the common.

The early hybrids do not seem to be widely grown in Colorado—there were votes on only two of them.

Species such as *villosa*, *josikaea*, *reflexa*, etc., that bloom a week or two later than the common (*vulgaris*) varieties, are surpassed by modern hybrids between these species and crosses between these species and the common. The late species and late hybrids which

the writer has tried out have so far been somewhat of an anti-climax after the French lilac show.

The species *pubescens* so highly rated for its fragrance by eastern writers opens its buds so early in Denver that frequently it is ruined or badly damaged by frost. The fragrance of the few inconspicuous blossoms of *pubescens* that occasionally survive late winter and early spring freezes is very different from that of the common lilac.

Mrs. Marriage and Mr. Bechtold each seem to have had some degree of

success with the species *tomentella*, but the writer's experience was that *tomentella* winter killed to the ground every year in Denver.

With the exceptions of the species *pubescens* and *tomentella* and Lake's adverse report on the hybrid *chinensis alba* at Gunnison, (*chinensis alba* reported as growing well in Denver), no other species or hybrids were reported as not liking our Colorado climate.

The following is a tabulation of the Colorado survey on the species other than *Syringa vulgaris* and its modern named varieties:

Votes	Colo. Aver- age	Nat'l Aver- age	EARLY HYBRIDS	
		6.1	LOUVOIS (Lem. 1921)	Violet
		7.0	VILLARS (Lem. 1920)	Lilac
2	6	7.2	OBLATA DILATATA (China 1917)	Pink
2	6	6.9	LAMARTINE (Lem. 1911)	Pink
		7.3	CATINAT (Lem. 1923)	Pink
		7.2	NECKER (Lem. 1920)	Pink
		6.4	BUFFON (Lem. 1921)	Pink
		6.6	MIRABEAU (Lem. 1911)	Lilac
		8.0	ASSESSIPPI (Skin. 1935)	Lilac
		7.7	MONTESQUIEU (Lem. 1926)	Red-purple
		7.3	POCAHONTAS (Skin. 1935)	Purple

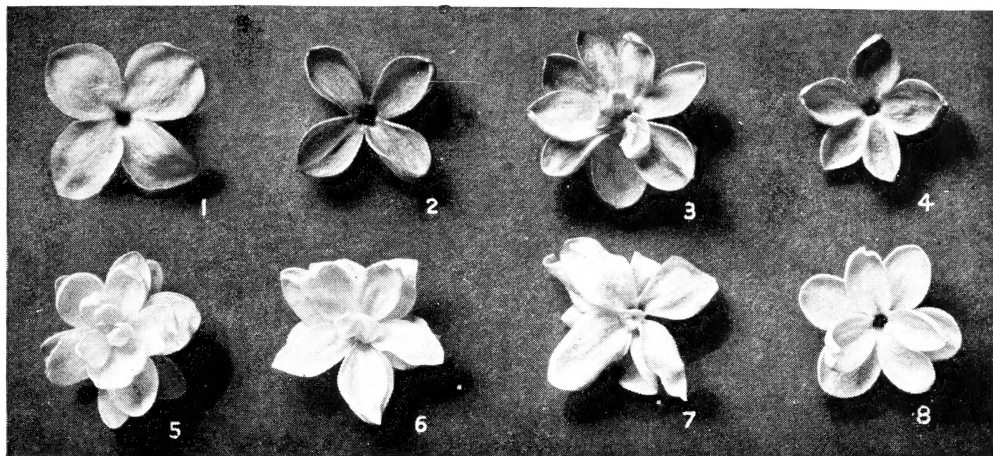
MIDSEASON SPECIES AND HYBRIDS

5	7.3	6.5	PERSICA
3	7	6.9	CHINENSIS (1796)
1	8	6.4	CHINENSIS ALBA (1885)
		8	CHINENSIS SAUGEANA (1885)
1	8	8	CHINENSIS METENSIS (1871)

LATE SPECIES AND HYBRIDS

8	5.3	6.2	VILLOSA
6	6.3	5.5	JOSIKAEA
4	6.5	6.6	HENRI LUTECE (VILLOSA X JOSIKAEA, Henry 1900)
1	7	7.3	MICROPHYLLA
3	3.7	7.1	TOMENTELLA
1	5	7.6	REFLEXA
3	7	6 to 8.1	PRESTON HYBRIDS (VILLOSA X REFLEXA AND VULGARIS X REFLEXA)
2	3	7.4	PUBESCENS
1	7	7.4	AMURENSIS
4	7.5	7.9	AMURENSIS JAPONICA
4	7	5.2	PEKINENSIS

Principal Variations in the Construction of Lilac Florets



This illustration by courtesy of Farr Nursery Company, Weiser Park, Pa.

EXAMPLES OF ABOVE TYPES OF FLORETS

Type 1: Christophe Colomb, Lucie Baltet, Macrostachya, Capitaine Baltet, Congo, Marceau (deeply cupped), Massena (wide petals but deeply cupped), Mme. F. Morel, Reaumur, Jan Van Tol, Mont Blanc, Vestale, Firmament, Glory (Night is similar, but petals not quite so wide).

Type 2: Bleuatre, Decaisne, De Miribel, La Place, Ludwig Spaeth, persica, chinensis, josikaea, Diderot.

Type 3: Jeanne d'Arc, Belle de Nancy, Pres. Fallieres, Waldeck-Rousseau, Comte de Montebello, Marechal Lannes, Adelaide Dunbar, Charles Joly, Mrs. Edward Harding, Henri Martin, Pres. Poincare.

Type 4: Pres. Lincoln, Jacques Callot, Monge.

Type 5: Edith Cavell, Ellen Willmott, Jules Simon, Leon Gambetta, Wm. Robinson, Katharine Havemeyer, Thunberg.

Type 6: Mme. Casimir Perier, Emile Gentil, Jean Mace, Rene Jarry-Desloges, Leon Simon.

Type 7: Mme. A. Buchner, Jules Ferry, Paul Thirion.

Type 8: Pres. Grevy, Georges Bellair, Vauban.

Some years ago John C. Wister (15), outstanding American authority on Lilacs, said: " 'Come down to Kew in Lilac Time,' that beautiful poem of Alfred Noyes, . . . had an effect its author never intended, namely to create the impression that to see lilacs at their finest one must visit Kew. . . . The truth is that our cold winters and hot dry summers are exactly what Lilacs like best. . . .

"America—from Maine to Virginia and west to the Rockies—(and far up into the Colorado Rockies almost to

timberline)—is the Lilac paradise." Part in parentheses is inserted by us.

As this report of the first survey of Lilacs for Colorado comes to a close the leaves are turning on the plains and in the mountains—and the chrysanthemums are coming out to dare the autumn sun to die. It is time for fortunate Colorado gardeners who would, in the spring, have "Lilacs in their doorway bloom," to carry out plans they made last May for planting some. They have boundless wealth from which to choose.

(15) John C. Wister, "The Lilac Line-up for Gardens Great and Small," House & Garden, Vol. 65, March 1934, p. 27.

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LILAC, LEON GAMBETTA
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